

Immune Epitope Database and Analysis Program

Epitopes are important in the development of vaccines, immunotherapeutics, and diagnostics, and help scientists understand the basis of immune mechanisms, including T cell memory and antibody production. In 2003, The National Institute of Allergy and Infectious Diseases (NIAID) initiated the Immune Epitope Database and Analysis Program to provide the scientific community with a central source of comprehensive information on antibody and T cell epitopes, and their functions. The primary objectives of this program are: to design, develop, populate, and maintain a comprehensive immune epitope database containing antibody and T cell epitopes, with an emphasis on epitopes associated with NIAID Category A, B, and C Priority Pathogens and their toxins; and to develop and maintain an analysis resource to complement and enhance the Immune Epitope Database. The Immune Epitope Database will be accessible to the scientific community via the Internet.

The Analysis Program will provide tools that can be used in conjunction with the Immune Epitope Database to help researchers locate and analyze information contained in the database. It also includes links to other relevant databases and related information. As part of the Immune Epitope Database, the Analysis Program will feature algorithm models and other analytical tools. Investigators from the scientific community will be encouraged to submit epitopes and analysis tools to the database for public use. In addition, a quarterly newsletter and an annual compendium of data in the Immune Epitope Database will be available to the scientific community through the website.

It is anticipated that the Immune Epitope Database and Analysis Program will facilitate the identification of antibody and T cell epitopes associated with bioterrorism agents and other infectious organisms, as well as immune-mediated diseases, for use as targets for immunotherapy, vaccines, or diagnostic tools;

develop more robust algorithms, mathematical models, and other predictive tools; and provide a central source of comprehensive information on antibody and T cell epitopes. NIAID anticipates that this resource will be available on the Internet in late 2004 or early 2005. Please check the NIAID biodefense website located at www.niaid.nih.gov/biodefense for updates and future information.

N I A I D B I O D E F E N S E R E S E A R C H

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